DOCUMENT RESUME

ED 371 602 FL 022 236

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TITLE Bilingual Readiness for Achieving through Valued Opportunities (Project BRAVO) Final Evaluation Report, 1992-93. OREA Report.
INSTITUTION New York City Board of Education, Brooklyn, NY. Office of Research, Evaluation, and Assessment.
PUB DATE 13 Sep 93
CONTRACT T003A20184
NOTE 36p.
AVAILABLE FROM Office of Educational Research, Board of Education of the City of New York, 110 Livingston Street, Room 732, Brooklyn, NY 11201.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Academic Achievement; Attendance; Bilingual Education; *Bilingual Education Programs; Curriculum Development; High Schools; Instructional Materials; Program Descriptions; *Program Effectiveness; *Program Evaluation; Second Language Instruction; Staff Development; *Transitional Programs
IDENTIFIERS New York City Board of Education

ABSTRACT

This report presents an evaluation of the Bilingual Readiness for Achieving through Valued Opportunities (Project BRAVO), an Elementary and Secondary Education Act Title VII-funded project in its first year of operation at Boys and Girls High School in Brooklyn (New York) and Louis D. Brandeis High School in Manhattan (New York). Participating students received instruction in English as a Second Language (ESL), native language arts (NLA), and the content area subjects of mathematics, science, social studies, and computer science. Although Project Bravo implemented all of its planned activities, it failed to provide the data for the evaluation of the program at Louis D. Brandeis High School. An evaluation of the project at Boys and Girls High School found that it met its objectives for ESL, Spanish NLA, computer science, social studies, attendance, dropout prevention, referral to special education, career orientation, staff development, and parental involvement. It failed to meet its objectives for math, science, placement in gifted programs, enrollment in postsecondary institutions, and curriculum development. Recommendations for program improvement are included. Two appendixes provide lists of instructional materials used in the program and class schedules. (MDM)

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ED 371 602

OREA Report

Bilingual Readiness for Achieving through Valued Opportunities (Project BRAVO)
Transitional Bilingual Education Grant T003A20184
FINAL EVALUATION REPORT
1992-93

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Bilingual Readiness for Achieving through Valued Opportunities (Project BRAVO)

Transitional Bilingual Education Grant T003A20184

FINAL EVALUATION REPORT

1992-93

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EXECUTIVE SUMMARY

Bilingual Readiness for Achieving through Valued Opportunities (Project BRAVO) was an Elementary and Secondary Education Act (E.S.E.A.) Title VII-funded project in its first year of operation at Boys and Girls High School in Brooklyn and Louis D. Brandeis High School in Manhattan. Participating students received instruction in English as a second language (E.S.L.); native language arts (N.L.A.); and the content area subjects of mathematics, science, social studies, and computer science.

Although Project BRAVO implemented all of its activities, it failed to provide the data for the evaluation of the program at Louis D. Brandeis High School. Data provided by Project Bravo were for Boys and Girls High School only. The project served a total of 47 limited English proficiency (LEP) students. The project met its objective for E.S.L., Spanish N.L.A., computer science, attendance, dropout prevention, referral to special education, career orientation, staff development, and parental involvement. It partially met its objective for the content areas, meeting it in social studies but not in mathematics and science. The project failed to meet its objectives for placement in gifted programs, enrollment in post-secondary institutions, and curriculum development. It did not provide the data necessary to evaluate the objective for grade retention.

The project provided in-service training to staff members and the opportunity to enroll in graduate level courses to improve their teaching skills in bilingual education. Project BRAVO's parental component included E.S.L. and high school equivalency classes, and included adult siblings of student participants. A parent advisory committee and school-related activities, were also offered.

The conclusions, based on the findings of this evaluation, lead to the following recommendations to the project:

- Provide all data necessary for the evaluation of the project.
- Investigate the lack of progress in mathematics and science. Explore additional techniques such as computer-assisted programs to increase acquisition of skills in those areas.
- Encourage prospective graduates to attend college. Seek assistance from the School-Based Support Team (S.B.S.T) in identifying and referring students to programs for the gifted and talented.
- Provide staff training in the area of curriculum development.

ACKNOWLEDGEMENTS

This report has been prepared by the Bilingual, Multicultural, and Early Childhood Evaluation Unit of the Office of Educational Research. Thanks are due to Mr. John Choonoo for collecting the data and writing the report.

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I. INTRODUCTION

This report documents the Office of Research, Evaluation, and Assessment's (OREA's) 1992-93 evaluation of the Elementary and Secondary Education Act (E.S.E.A.) Title VII project, Bilingual Readiness for Achieving through Valued Opportunities (Project BRAVO).

PROJECT CONTEXT

The project operated at Louis D. Brandeis High School in Manhattan and Boys and Girls High School in Brooklyn.

The student population of 2,702 at Louis D. Brandeis High School was 42.8 percent African-American, 55.2 percent Latino, 1.3 percent Asian-American, and 0.7 percent European-American. About a quarter (24.6 percent) of these students were of limited English proficiency (LEP). Almost 60 percent of the students came from low-income families.

Louis D. Brandeis High School was housed in a building constructed in 1965. It received an overall appearance rating of above-average in the Board of Education school profile report (1992). Students' work and teacher-prepared materials decorated classroom walls. A computer resource center was available and appeared to be used efficiently by the students.

The student population of 4,443 at Boys and Girls High School was 55.2 percent Latino, 42.8 percent African-American, 1.3 percent Asian-American, and 0.7 percent European-American. About a quarter (24.6 percent) of these students were

of limited English proficiency (LEP). Forty-three percent of the students came from low-income families.

Boys and Girls High School was housed in a relatively new building (constructed in 1976). Classrooms were well-lit and newly painted with an overall above-average appearance rating as reported in the Board of Education school profile report (1992). Student writings and art and teacher-made charts were on display in classrooms. A resource center equipped with tape recorders and computers was made available to students.

STUDENT CHARACTERISTICS

Since the project provided no information on Louis Brandeis High School, all data that follows in this chapter refers to Boys and Girls High School.

Project BRAVO served 47 LEP students in ninth through twelfth grade at Boys and Girls High School. (See Table 1.)

TABLE 1

Number of Students in Project BRAVO, by Grade

Site	9	10	11	12	Total
Boys and Girls High School	7	13	15	12	47

Scores at or below the 40th percentile on the Language Assessment Battery (LAB) determined LEP status. For admission, the project also took into consideration

language literacy level, academic records, letters of recommendation from teachers, and personal interviews.

Male students numbered 25 (53.2 percent), female 22 (46.8 percent). All students had Spanish as their native language. Most students came from the Dominican Republic and Panama. (See Table 2 for countries of origin.) Most (95.7 percent) of the participants came from low-income families and were eligible for the free-lunch program.

TABLE 2

Students' Countries of Origin for Boys and Girls High School

Country	Number of Students
Dominican Republic	17
Panama	14
Honduras	4
Costa Rica	3
Puerto Rico	3
Mexico	2
Venezuela	2
El Salvador	1
Nicaragua	1
Total	47

Needs Assessment

The project identified the target population from an assessment of proficiency in speaking, reading, and writing English at both sites. A majority of the target students were recent immigrants who had received very little formal education in their home countries. They were experiencing difficulty in adjusting to their new culture. Many came from low-income families. Based on these educational and assimilation needs, the project provided English as a second language (E.S.L.) and native language arts (N.L.A.) instruction, cultural enrichment, and opportunities for parental involvement. The project provided staff development activities and developed curriculum materials to meet the educational needs of the target population.

PROJECT OBJECTIVES

Student Objectives

- By June 1993, 75 percent of participating students will demonstrate an appropriate increase in English language proficiency as indicated by significant improvement on the Language Assessment Battery.
- By June 1993, 70 percent of participating Spanish-speaking students will demonstrate gains in Spanish-language achievement.
- Seventy-five percent of participating students will receive a passing grade of 65 or better in the content areas of mathematics, science, and social studies.
- Seventy-five percent of participating students will demonstrate a significant increase in their knowledge and skills in computer science as indicated by receiving a passing grade of 65 on the final exam for computer science.
- As a result of participation in the program, student grade retention will be 10 to 15 percent less than mainstream.

- As a result of participation in the program, the rate of referral to special education classes will be 10 to 15 percent less than mainstream students'.

- As a result of participation in the program, the rate of referral to special programs, e.g., remedial programs, will be 10 percent less than mainstream students'.

- Participating students will have a lower dropout rate than non-program students.

- The attendance rate of target students will be 10 to 15 percent greater than mainstream students'.

- As a result of participation in the program, placement in programs for the gifted and talented will be 5 percent greater than mainstream students'.

- As a result of participation in the program, enrollment in post-secondary education institutions will be 5 percent greater than mainstream students'.

- As a result of participation in the project, students will meet with the bilingual career specialist, grade advisors, or counselors at least twice during the school year for career orientation and planning.

Staff Development Objectives

- Eighty percent of program staff working with program students will demonstrate professional growth by completing courses of study as indicated by college transcripts and certificates.

Curriculum Development

- As a result of the program, at least two instructional guides in the content areas and N.L.A will be developed in Spanish.

Parental Involvement Objectives

- Parents of target students will demonstrate more parental involvement than parents of mainstream students by demonstrating a 10 to 15 percent higher attendance at school functions.

PROJECT IMPLEMENTATION

During the 1992-93 school year, Project BRAVO provided instructional and support services to 47 Spanish-speaking students and their families at Boys and Girls High School. Since the project provided no information on Louis D. Brandeis High School, OREA was unable to ascertain how many students were served at that site.

The project's main goal was to promote acquisition of language and content area skills by LEP students.

Project BRAVO offered parental involvement activities and in-service staff development activities. The project also provided reimbursement to staff for college tuition.

Materials, Methods, and Techniques

Boys and Girls High School offered E.S.L. at beginning, intermediate, and advanced levels and N.L.A. at intermediate, advanced, and advanced placement levels.

Teachers of participating students used a wide array of strategies and techniques, including cooperative learning, reading groups, individualized instruction, and a whole language approach. Computers supplemented classroom instruction. Seniors and juniors also tutored students in E.S.L., N.L.A., and the content areas. The bilingual resource specialist provided individual remediation, including after-school tutoring, in a resource room at Boys and Girls High School.

For a list of instructional materials used in the project, please see Appendix A.

Capacity Building

In the second year of the project, Boys and Girls High School plans to assume 25 percent of the costs of a resource teacher.

Staff Qualifications

Title VII staff. A bilingual resource teacher was fully funded by Title VII. She had an M.A. degree and was teaching proficient* in Spanish. She served as project director. Her responsibilities were to assist classroom teachers in the development and implementation of instructional activities, help plan activities for parents of participating students, and select instructional material.

Other staff. Tax-levy funds paid the salaries of the eight classroom teachers and one guidance counselor who provided instructional services to project students. Five of eight teachers were communicative proficient** in Spanish. All held master's degrees and had high school certification in the subject areas they taught.

Staff development. The project provided in-service workshops, and project staff enrolled in college/university courses.

Instructional Time Spent on Particular Tasks

See Appendix B for examples of class schedules for students at Boys and Girls High School.

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*Teaching proficiency is defined as the ability to use LEP students' native language in teaching language arts or other academic subjects.

**Communicative proficiency is defined as a non-native speaker's basic ability to communicate and interact with students in their native language.

Length of Time Participants Received Instruction

Students had a mean of 7.4 years (s.d.=1.9) of education in a non-English-speaking school system and 3.2 years (s.d.=1.7) of education in the United States. The median time students participated in Project BRAVO was 10 months.

Activities to Improve Pre-referral Evaluation Procedures for Exceptional Children

The project did not provide any services for exceptional children.

Instructional Services for Students with Special Needs

The project did not offer any services to students with special needs.

PARENT AND COMMUNITY INVOLVEMENT ACTIVITIES

The project provided E.S.L. and high school equivalency classes for parents and adult siblings of participating students, established a parent advisory board, and developed parent activities.

II. EVALUATION METHODOLOGY

EVALUATION DESIGN

Project Group's Educational Progress as Compared to That of an Appropriate Non-Project Group

OREA used a gap reduction design to evaluate the effect of language instruction on project students' performance on standardized tests. Because of the difficulty in finding a valid comparison group, OREA used instead the groups on which the tests were normed. Test scores are reported in Normal Curve Equivalents (N.C.E.s), which are normalized standard scores with a mean of 50 and a standard deviation of 21.1. It is assumed that the norm group has a zero gain in N.C.E.s in the absence of supplementary instruction and that participating students' gains are attributable to project services.

Applicability of Conclusions to All Persons Served by Project

Data were collected from all participating students for whom there were pre- and posttest scores. (There were no pretest data on students who entered the program late; therefore, posttest data for them will serve as pretest data for the following year.) Instruments used to measure educational progress were appropriate for the students involved. The LAB is used throughout New York City to assess the growth of English in populations similar to those served by Project BRAVO.

INSTRUMENTS OF MEASUREMENT

OREA compared pre- and posttest scores on the LAB to assess the E.S.L. objective. The N.L.A. objective and the content area objective in mathematics, science, and social studies were assessed through course grades, as specified.

All students were tested at the appropriate grade level. The language of the LAB was determined by the test itself.

According to the publishers' test manuals, all standardized tests used to gauge project students' progress are valid and reliable. Evidence supporting both content and construct validity is available for the LAB. Content validity is confirmed by an item-objective match and includes grade-by-grade item difficulties, correlations between subtests, and the relationship between the performance of students who are native speakers of English and students who are LEP. To support reliability, the Kuder-Richardson Formula 20 (KR20) coefficients and standard errors of measurement (SEM) are reported by grade and by form for each subtest and total test. Grade reliability coefficients, based on the performance of LEP students on the English version, ranged from .88 to .96 for individual subtests and from .95 to .98 for the total test.

DATA COLLECTION AND ANALYSIS

Data Collection

To gather qualitative data, an OREA evaluation consultant carried out on-site and telephone interviews with the project director several times during the school year and also observed two classes on each of two visits. The project evaluator

collected the data and prepared the final evaluation report in accordance with the New York State E.S.E.A. Title VII Bilingual Education Final Evaluation Report format, which was adapted from a checklist developed by the staff of the Evaluation Assistance Center (EAC) East in consultation with the Office of Bilingual Education and Minority Language Affairs (OBEMLA).

Proper Administration of Instruments

Qualified personnel received training in testing procedures and administered the tests. Test administrators followed guidelines set forth in the manuals accompanying standardized tests. Time limits for subtests were adhered to; directions were given exactly as presented in the manual.

Testing at Twelve-Month Intervals

Standardized tests were given at 12-month intervals, following published norming dates.

Data Analysis

Accurate scoring and transcription of results. Scoring, score conversions, and data processing were accomplished electronically by the Scan Center of the Board of Education of the City of New York. Data provided by the Scan Center were analyzed in the Bilingual, Multicultural, and Early Childhood Evaluation Unit of OREA. Data collectors, processors, and analysts were unbiased and had no vested interest in the success of the project.

Use of analyses and reporting procedures appropriate for obtained data. OREA computed the percentage of students showing gains from pretest to posttest

on the LAB. To assess the significance of students' achievement in English OREA computed a correlated *t*-test on LAB N.C.E. scores. The *t*-test determined whether the difference between the pre- and posttest scores was significantly greater than would be expected from chance variation alone.

The only possible threat to the validity of any of the above instruments might be that LAB norms were based on the performance of English proficient (EP) rather than LEP students. Since OREA was examining gains, however, this threat was inconsequential—the choice of norming groups should not affect the existence of gains.

III. FINDINGS

PARTICIPANTS' EDUCATIONAL PROGRESS

The information that follows is for Boys and Girls High School only, except for classroom observations at Louis D. Brandeis High School.

Participants' Progress in English

The OREA consultant visited an intermediate level E.S.L. class of 21 students at Louis D. Brandeis High School. Using computer-assisted instruction (C.A.I.), the teacher and a computer instructor presented an English comprehension lesson. Each student entered on the computer ten questions relating to a story from the previous lesson. The students received a list of words and expressions and were asked to fill in blanks to complete the sentences.

The OREA evaluation consultant observed two E.S.L. classes at Boys and Girls High School. The first was an advanced E.S.L. class. The teacher presented a reading lesson using William E. Barrett's novel *Lilies of the Field*. Students took a written quiz on the reading assignment given the previous day. A paraprofessional assisted students experiencing difficulties in understanding the quiz. The rest of the class time was spent on reviewing the quiz.

The second E.S.L. class observed by the OREA consultant was at the intermediate level. Using a cooperative learning strategy, the teacher presented a lesson on the life and views of Malcolm X. The main instructional material was an article from an educational journal, "The Roots of the Civil Rights Movement: Malcolm X Takes His Place in the Fight Against Racist Brutality" by Nancee Lyons.

Working in small groups of up to six, students discussed the article and worked on completing a questionnaire prepared by the teacher. Student interaction was mainly in Spanish; classroom discussion was entirely in English.

The evaluation objective for English as a second language was:

- By June 1993, 75 percent of participating students will demonstrate an appropriate increase in English language proficiency as indicated by significant improvement on the Language Assessment Battery.

There were complete pre- and posttest scores on the LAB for 32 students from grades nine through twelve at Boys and Girls High School. (See Table 3.) Gains for these students (9.1 N.C.E.s) were statistically significant. Overall, 78.1 percent of the students demonstrated an increase from pre- to posttest scores.

The project met its objective for English as a second language.

Participant's Progress In Native Language Arts

The evaluation objective for native language arts was:

- By June 1993, 70 percent of participating Spanish-speaking students will demonstrate gains in Spanish-language achievement.

All 33 students enrolled in Spanish N.L.A. in the fall semester received a passing grade. In the spring, 84.8 percent (28) of the students passed.

Project BRAVO met its objective for native language arts.

TABLE 3

Pretest/Posttest N.C.E. Differences on the
Language Assessment Battery, by Grade

Grade	Total number of project students	Number of students for whom data were available	Pretest		Posttest		Difference		*t* value
			Mean	S.D.	Mean	S.D.	Mean	S.D.	
9	7	4	9.3	10.2	18.0	12.9	8.8	6.7	2.61
10	13	10	13.4	14.6	21.1	14.8	7.7	10.4	2.33*
11	15	11	16.2	12.5	25.2	16.4	9.0	12.4	2.40*
12	12	7	17.6	8.0	28.9	5.9	11.3	5.1	5.87*
Total	47	32	14.8	11.9	23.8	13.7	9.1	9.6	5.33*

*$p < .05$

- Students overall as well as in grades ten, eleven, and twelve had a significant increase on the LAB.

LEP Participants' Academic Achievement

Participating students received five periods of Spanish-language content area instruction per week in global studies, general science or biology, and fundamentals of mathematics or sequential mathematics. They also received five periods of American history instruction in English supplemented by Spanish.

The content area objectives were:

- Seventy-five percent of participating students will receive a passing grade of 65 or better in the content areas of mathematics, science and social studies.

Only in social studies did at least 75 percent of the students receive a passing grade. (See Table 4.)

The project partially met its objective for mathematics, science, and social studies.

- Seventy-five percent of all target students will demonstrate an increase in their knowledge and skills in computer science as indicated by receiving a passing grade of 65 on the final exam for computer science.

Of the students taking computer science, 83.3 percent passed in the fall and 75 percent passed in the spring. (See Table 4.)

The project met its passing grade objective for computer science.

TABLE 4

Passing Grades in Content Area Courses at Boys and Girls High School

Subject	Fall 1992		Spring 1993	
	Number of students for whom data were reported	Percent Passing	Number of students for whom data were reported	Percent Passing
Math	43	72.1	44	59.1
Science	35	62.9	35	71.4
Social Studies	45	77.8	43	88.4
Computer	6	83.3	8	75.0

FORMER PARTICIPANTS' ACADEMIC PROGRESS IN ENGLISH LANGUAGE CLASSROOMS

This was the first year of the project, so there were no former participants.

OVERALL EDUCATIONAL PROGRESS ACHIEVED THROUGH PROJECT

Grade Retention

- As a result of participation in the program student grade retention will be 10 to 15 percent less than mainstream.

Seven participating students (14.9 percent) were retained in grade. Mainstream data were not provided. The objective could not be measured.

Referral to Special Education Programs

- As a result of participation in the program, the rate of referral to special programs will be 10 percent less than mainstream students.

None of the project students were referred to special education programs, compared to six mainstream students.

The project met its objective for referral to special education programs.

Dropout Prevention

Project BRAVO proposed the following dropout prevention objective:

- Participating students will have a lower dropout rate than non-program students.

No students in the project dropped out of school. The schoolwide dropout rate was 5.1 percent in 1991-92, the last year for which this information was available.

Project BRAVO met its objective for dropout prevention.

Attendance

- The attendance rate of target students will be 10 to 15 percent greater than mainstream students.

The attendance rate for the project was 89.0 percent. The schoolwide attendance rate was 78.2 percent. Project students' attendance was 10.8 percent higher than that of mainstream students.

The project met its attendance objective.

Placement in Gifted and Talented Programs

- As a result of participation in the program, placement in programs for the gifted and talented will be 5 percent greater than mainstream students.

The project did not place any of its students in programs for the gifted or talented.

The project did not meet its objective for placement in gifted and talented programs.

Enrollment in Post-secondary Education Institutions

- As a result of participation in the program, enrollment in post secondary education institutions will be five percent greater than mainstream students'.

No students enrolled in post-secondary institutions. The project director stated that there were only a few students who graduated from high school in this first year of the project. More students were expected to graduate from high school and enroll in post-secondary institutions in the second and third year of the project.

Project Bravo did not meet its objective for post-secondary school enrollment.

Career Development

- As a result of participation in the project, students will meet with the bilingual career specialist, grade advisors, or counselors at least twice during the school year for career orientation and planning.

The project director reported that all project students met on an individual basis with their grade advisor. Students also met with the bilingual resource specialist for advisement three times during each semester for career orientation and planning.

Project BRAVO met its career development objective.

CASE HISTORY

X.Y.Z. came to the United States two years ago from the Dominican Republic. Even in his native language he could not communicate well. Difficulties at home adversely affected his behavior in the classroom.

Through his participation in the program and his mother's involvement in the parent program, his work and behavior improved considerably. He adapted better to his environment and became more confident. In the past year, he was selected to

participate in a field trip to a college as a reward for his educational improvement. He was also chosen as the student showing greatest improvement in the foreign language department for the month of April, and was he honored at a special principal's ceremony.

STAFF DEVELOPMENT OUTCOMES

- Eighty percent of program staff working with program students will demonstrate professional growth by completing courses of study as indicated by college transcripts and certificates.

Except for the guidance counselor, all ten project staff members completed courses of study. Some of the courses taken included cooperative learning, teaching exceptional children, Gestalt psychotherapy, 17th century Spanish literature, foundations in bilingual education, teaching English as a second language, cognition in teaching, teaching literature through a response-based approach, teaching reading in elementary school, and psychology of education.

The project met its staff development objective.

CURRICULUM DEVELOPMENT OUTCOMES

- As a result of the program, at least two instructional guides in the content areas and N.L.A. will be developed in Spanish.

The following materials were developed by the Office of High School Bilingual and E.S.L. programs and were used by the project: Estudios Globales I,II,III and IV; Fundamental Math for Bilingual Spanish Students, Books I and II; Repaso Para el Examen de Competencia en Ciencias. Two of the project staff assisted in the translation of sequential mathematics into Spanish.

The project did not meet its curriculum development objective. The project plans to provide more staff training in the development of curriculum materials in the future.

PARENTAL INVOLVEMENT OUTCOMES

Project BRAVO proposed one parental involvement objective:

- Parents of target students will demonstrate more parental involvement than parents of mainstream students by demonstrating a 10 to 15 percent higher attendance at school functions.

A parent advisory committee was formed, consisting of eight parents. The committee met five times during the course of the year.

Eighty percent of the parents of project students attended open school day/evening, compared to 60 percent of mainstream students' parents.

The project met its parental involvement objective.

IV. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

ACHIEVEMENT OF OBJECTIVES

Project BRAVO failed to provide the data required to evaluate either the implementation of the project or its outcomes at Louis D. Brandeis High School. However, a visit to the school by the OREA evaluator and an interview with the project supervisor at the site indicated that the project carried out all of its planned activities.

The available data for Boys and Girls High School showed that the project met its objectives for E.S.L., N.L.A., computer skills, attendance, dropout prevention, referral to special education, career development, staff development, and parental involvement. The project partially met its objective for the content areas and failed to meet its objectives for placement in gifted and talented programs, enrollment in post-secondary institutions, and curriculum development.

Participating students in Project BRAVO showed academic progress. Of the 47 participating students in grades nine through twelve at Boys and Girls High School, 40 were promoted to the next grade. The students showed gains in English, Spanish, and the content areas.

Project services not only benefited the students academically but also increased their awareness of the importance of education. The attendance rate of participating students was higher and the dropout rate lower than that of the Boys and Girls High School mainstream population.

Teachers attended graduate courses to increase their knowledge of bilingual education. In-service workshops were considered useful to teachers in their project-related responsibilities.

MOST AND LEAST EFFECTIVE COMPONENTS

The most effective component of the project at Boys and Girls High School was the individualized instruction provided by the bilingual resource teacher. This enabled students to make substantial progress in E.S.L., N.L.A., and computer science.

The least effective component was the project's lack of services to special education students even though the original design explicitly included services to them. The project also paid little attention to the development of curriculum materials.

RECOMMENDATIONS TO ENHANCE PROJECT EFFECTIVENESS

- Provide all data necessary for the evaluation of the project.
- Investigate the lack of progress in mathematics and science. Explore additional techniques such as computer-assisted programs to increase acquisition of skills in those areas.
- Encourage prospective graduates to attend college. Seek assistance from the School-Based Support Team (S.B.S.T) in identifying and referring students to programs for the gifted and talented.
- Provide staff training in the development of instructional materials.

APPENDIX A

Instructional Materials

E.S.L.

Grade	Title	Author	Publisher	Date of Publication
9-12	Lilies of the Field	William E. Barrett	Warner Communication Co.	1982
9-12	Starting to read	Linda Mirowicki	Linmore Publishing Co.	1988
9-12	Teen Scene	Kamala Devi Koch, et al	Linmore Publishing	1988
9-12	American Short Stories	Greg Costa	Harcourt Brace Jovanovich	1983
9-12	The Whole Story	Richard Rossner	Longmans	1988
9-12	React Interact	Donald Rossner	Regents Publishing Company	1988
9-12	Our People and Their Story	Nancy Susan Dunetz	Addison Wesely	1987
9-12	The New Oxford Picture Dictionary	Parnell	Oxford University Press	1988
9-10	Skits in English	Mary Elizabeth	Regents	1973
9-12	Reply Requested	Richard Yorkey	Addison Wesley	1981
9-12	Turning Points	Giuliano Iantorno	Addison Wesley	1986
9-12	New Horizons in English-Reader	Lars Mellgren Michael Walker	Addison Wesely	1980
9-10	Skill Sharpeners	Judy Defilippo	Addison Wesely	1984
9-10	New Horizons in English 3	Lars Mellgren	Addison Wesley	1980

APPENDIX A

Instructional Materials, cont'd.

N.L.A.

Grade	Title	Author	Publisher	Date of Publication
11-12	Aproximaciones al Estudio de la Literatura Hispánica	Carmelo Virgilio et al	Random House	1982
11-12	Abel Sánchez	Miguel de Unamuno	Colección Austral	1985
11-12	Tres Novelas Ejemplares y un Prólogo	Miguel de Unamuno	Colección Austral	1982
11-12	Fiesta a Noroeste	Ana M. Matute	Destino Libro	1987
11-12	Algunos Muchachos	Ana M. Matute	Destino Libro	1982
11-12	Ficciones	Jorge Luis Borges	Alianza	1988
11-12	Narraciones	Jorge Luis Borges	Cátedra	1986
11-12	Los Funerales de la Mamá Grande	Gabriel García Marquez	Edit Suramericana	1990
11-12	Cien años de Soledad	Gabriel García Marquez	Edit Suramericana	1990
11-12	La Hojarasca	Gabriel García Marquez	Oveja Negra	1986
11-12	La Erendira	Gabriel García Marquez	Edit Suramericana	1991
11-12	New Horizons in English-Reader	Lars Meligren Michael Walker	Addison Wesely	1980
11-12	Antología (Teatro)	Federico García Lorca	Porrúa	1986
Inter-mediate	El Español y su Estructura	Silva Burunat et al	CBS College Publishing	1983

APPENDIX A

Instructional Materials, cont'd.

Mathematics

Grade	Title	Author	Publisher	Date of Publication
10	Integrated Mathematics Course I	Dressler & Keenan	AMSCO	1989
10	Bilingual Sequential Mathematics	Rosario	Translation	*
9	Achieving Competency in Mathematics	Mandery and Schneider	AMSCO	1987
9	Fundamentos de Matemáticas	Cedeño	NYC Board of Education	1989

Science

Grade	Title	Author	Publisher	Date of Publication
9	La Matería y la Energía	Heimler and Price	Merill Publishing	1985
10	Biología	Alexander et al	Prentice Hall	1992
9	Achieving Competency in Mathematics	Mandery and Schneider	AMSCO	1987
9	Fundamentos de Matemáticas	Cedeño	NYC Board of Education	1989

Social Studies

Grade	Title	Author	Publisher	Date of Publication
11	Exploring our Nation's History	Schwartz O'Connor	Globe Book Company	1975

*Not submitted by project.

APPENDIX B

Class Schedules

9th Grade

Days	Period	Subject
M-F	1	Boys PE
M-F	2	E.S.L.
M-F	3	Spanish
M-F	4	Lunch
M-F	5	Global History
M-F	6	Bilingual English
M-F	7	General Science
M-F	8	Math Fundamentals
M-F	9	Resource Room

11th Grade

Days	Period	Subject
M-F	1	Applied Chemistry
M-F	2	Bilingual English
M-F	3	E.S.L.
M-F	4	Lunch
M-F	5	Sequential Math
M-F	6	Spanish
M-F	7	American History
M-F	8	Health Instruction
M-F	9	Resource Room